

Applicant : Satoshi Yamamoto et al.
Serial No. : 09/823,829
Filed : March 30, 2001
Page : 5

Attorney's Docket No. 12817-004001 / PH-581US-CIP

“Version With Markings to Show Changes Made”

In the specification:

Paragraph beginning at page 4, line 11, has been amended as follows:

As described above, the present Inventors have already developed and applied successfully the method for the identification/classification or detection/monitoring of organisms using *gyr B* sequences. In this method, a *gyr B* gene fragment of an organism of interest is amplified by PCR using primers designed from the two amino acid sequences, His-Ala-Gly-Gly-Lys-Phe-Asp (SEQ ID NO:81) and Met-Thr-Asp-Ala-Asp-Val-Asp-Gly (SEQ ID NO:82), which are highly conserved among the GyrB sequences of many organisms. Subsequently, the amplified fragments are subjected to direct sequencing. Since the *gyr B* genes code for proteins, they have frequently undergone neutral mutations. Thus, the nucleotide sequence of the *gyr B* genes vary considerable even among related organisms. For this reason, the above method has been shown to be effective for discriminating organisms at a level of species of subspecies.